Is the syntax-discourse interface a locus of permanent optionality? The case of locative inversion in L2 English

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At present, there are two main hypotheses on the end-state of L2 acquisition at the syntax-discourse interface. According to one hypothesis, the Interface Hypothesis (IH) (Sorace, 2011; Sorace & Filiaci, 2006), structures involving the interface between syntax and grammar-external domains, like discourse and pragmatics, are a locus of residual, but permanent, optionality, because L2ers are less than optimally efficient at integrating syntactic and contextual information in real-time language use as a by-product of bilingualism (for details, see Sorace, 2011). According to an alternative hypothesis which has recently emerged in work by Domínguez & Arche (2014) and Slabakova (2015), structures at the syntax-discourse interface generate problems at highly advanced levels of proficiency iff their properties are different in the L1 and the L2 and the evidence available in the input is not transparent (e.g. because the structure is rare). We will label this hypothesis the "L1+input hypothesis" (LIH).

With a view to testing the IH and the LIH, the present study investigates the acquisition of locative inversion (LI) in L1 European Portuguese (EP) – L2 English and L1 French – L2 English. This is an appropriate testing ground for these hypotheses for three reasons. First, English LI is a structure at the syntax-discourse interface: it is only admitted when the fronted locative (Loc) is presupposed (Teixeira, 2016), the subject (S) is part of the focus (Birner, 1996), and the verb (V) is informationally light (Levin & Rappaport Hovay, 1995) and unaccusative-like (Culicover & Levine, 2001). More specifically, the V must be either an unaccusative of existence and appearance (e.g. live, appear) or a redundant unergative, i.e. an unergative that expresses a prototypical activity of the S referent (e.g. From the flagpole waved a tattered banner / ??a bearded student) and behaves like an unaccusative (Mendikoetxea, 2006). Second, LI is infrequent in English. Lastly, this inversion is subject to the same constraints in English and French, but not in EP. Unlike these languages, EP allows LI with all intransitive Vs (Pereira, 1998). Given these facts, the LIH and the IH make different predictions about the performance of EP and French speakers with respect to English LI. The former predicts that French speakers will behave native-like, while EP speakers will not. The latter, in contrast, predicts that both groups of L2ers will display some level of optionality in their performance.

The participants in this study were adult monolingual speakers of English (n=26), advanced and near-native French L2ers of English (n = 15 ADV, 11 NN) and advanced and near-native Portuguese L2ers of English (n = 17 ADV, 11 NN). Their proficiency was assessed through the same type of screening procedure used by Sorace & Filiaci (2006). By administering 2 untimed drag and drop tasks, 2 speeded acceptability judgement tasks and 1 syntactic priming task to all participants, cf. (1) to (3), we tested, on the one hand, the type of intransitive V allowed in LI – unaccusative of existence and appearance vs. unaccusative of change of state vs. redundant unergative vs. nonredundant unergative – and, on the other, the type of discourse context in which this inversion is admitted – topic Loc + focus S vs. focus Loc + topic S vs. focus Loc + focus S. Analyses were conducted using mixed-effects models with crossed random effects for subjects and items using the lme4 package of R. As shown in table 1, all groups of L2ers exhibited optionality regarding the type of V and the discourse context compatible with LI at least in one type of task. Crucially, monolingual speakers did not display optionality in any tasks. Our results thus confirm the IH's prediction. They moreover suggest that L2ers' efficiency at integrating syntactic and contextual information varies according to 4 factors: i) the load imposed by the task on processing resources (demanding task → less efficiency), ii) the distance between L1 and L2 (L1 \neq L2 \rightarrow less efficiency), iii) the quantity of contextual information the speaker needs to process (many pieces of contextual information, as in the tasks on the discourse contexts compatible with LI → less efficiency), and iv) L2ers' level of proficiency (higher level of proficiency \rightarrow more efficiency).

(1) Drag & drop task: Sample item

(2) Contextualized speeded acceptability judgement task: Sample item

The bottom of the sea was a mass of brilliant colour, with waving fronds of multicoloured plants and bright seashells everywhere.

many colourful fish around the plants swam

[participants were asked to create a minimum of 1 and a maximum of 4 continuations to the sentence presented, by ordering the blocks of words provided to them]

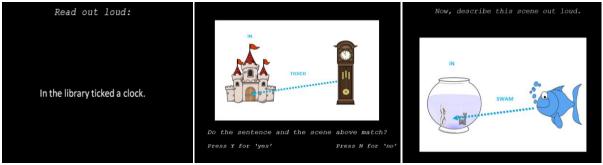
To the right I could see the top of one of Portland's many bridges, one I may have crossed once but I can't recall. [presented as a block without time constraints]

above / the / bridge / flew / flocks / of /seagulls [presented word by word at a rate of 400 ms per word]

Totally unacceptable 6 1 6 2 6 3 6 4 6 5 Totally acceptable

[the scale appeared after the final word]

(3) Syntactic priming task: Sample item



[Subtasks 1 and 2 had to be done within 4 s, while subtask 3 had to be done within 5 s.]

Table 1 – Summary of the results per task and group

Variable	Task	Near-native L2ers		Advanced L2ers	
		L1 Fr	L1 EP	L1 Fr	L1 EP
Type of intransitive verb	Drag & Drop 1	Near-native	Near-native	Near-native	Near-native
	Priming	Near-native	Indeterminate	Indeterminate	Indeterminate
	Acceptability judgements 1	Optionality	Optionality	Optionality	Optionality
Type of discourse context	Drag & Drop 2	Near-native	Optionality	Optionality	Near-native
	Acceptability judgements 2	Optionality	Optionality	Optionality	Optionality

Legend: *near-native* = LI is produced significantly more in the conditions which are compatible with it than in those which are not, but is sub- or overproduced in at least one condition; *optionality* = within the L2 group there are no significant differences in the level of acceptance/production of LI between the conditions which are compatible with this word order and (some of) those which are not, and the group simultaneously displays a higher level of acceptance/production of LI in the conditions which disfavour inversion than the control group; *indeterminate* = the group exhibits a low level of production of LI across all conditions, including those where the monolinguals allow this word order, and does not differentiate between the conditions which are compatible with this type of inversion and those which are not.

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